



Entrez, The Life Sciences Search Engine

[HOME](#) | [SEARCH](#) | [SITE MAP](#) | [PubMed](#) | [All Databases](#) | [Human Genome](#) | [GenBank](#) | [Map Viewer](#) | [BLAST](#)

Search across databases

"linkage database"


GO


Clear

Help

Result counts displayed in gray Indicate one or more terms not found

22		PubMed: biomedical literature citations and abstracts		42		Books: online books	
13		PubMed Central: free, full text journal articles		1		OMIM: online Mendelian Inheritance in Man	
71		Site Search: NCBI web and FTP sites		none		OMIA: online Mendelian Inheritance in Animals	
none		CoreNucleotide: Core subset of nucleotide sequence records		1		dbGaP: genotype and phenotype	
none		EST: Expressed Sequence Tag records		none		UniGene: gene-oriented clusters of transcript sequences	
none		GSS: Genome Survey Sequence records		none		CDD: conserved protein domain database	
none		Protein: sequence database		none		3D Domains: domains from Entrez Structure	
21		Genome: whole genome sequences		none		UniSTS: markers and mapping data	
none		Structure: three-dimensional macromolecular structures		none		PopSet: population study data sets	
none		Taxonomy: organisms in GenBank		none		GEO Profiles: expression and molecular abundance profiles	
none		SNP: single nucleotide polymorphism		25		GEO DataSets: experimental sets of GEO data	
127		Gene: gene-centered information		14		Cancer Chromosomes: cytogenetic databases	
8		HomoloGene: eukaryotic homology groups		none		PubChem BioAssay: bioactivity screens of chemical substances	
76		PubChem Compound: unique small molecule chemical structures		none		GENSAT: gene expression atlas of mouse central nervous system	
9		PubChem Substance: deposited chemical substance records		9313		Probe: sequence-specific reagents	
1		Genome Project: genome project information		5		Protein Clusters: a collection of related protein sequences	
3		Journals: detailed information about the journals indexed in PubMed and other Entrez databases		none		MeSH: detailed information about NLM's controlled vocabulary	
21		NLM Catalog: catalog of books, journals, and audiovisuals in the NLM collections					







































Entrez, The Life Sciences Search Engine.

[HOME](#) | [SEARCH](#) | [SITE MAP](#) | [PubMed](#) | [All Databases](#) | [Human Genome](#) | [GenBank](#) | [Map Viewer](#) | [BLAST](#)

Search across databases [Help](#)

■ - Result counts displayed in gray indicate one or more terms not found

<div style="display: flex; align-items: center; margin-bottom: 5px;"> <div style="border: 1px solid black; padding: 2px; margin-right: 5px;">67</div> <div style="margin-right: 5px;"></div> <div> PubMed: biomedical literature citations and abstracts </div> </div> <div style="display: flex; align-items: center; margin-bottom: 5px;"> <div style="border: 1px solid black; padding: 2px; margin-right: 5px;">1527</div> <div style="margin-right: 5px;"></div> <div> PubMed Central: free, full text journal articles </div> </div> <div style="display: flex; align-items: center; margin-bottom: 5px;"> <div style="border: 1px solid black; padding: 2px; margin-right: 5px;">29</div> <div style="margin-right: 5px;"></div> <div> Site Search: NCBI web and FTP sites </div> </div>	<div style="display: flex; align-items: center; margin-bottom: 5px;"> <div style="border: 1px solid black; padding: 2px; margin-right: 5px;">11</div> <div style="margin-right: 5px;"></div> <div> Books: online books </div> </div> <div style="display: flex; align-items: center; margin-bottom: 5px;"> <div style="border: 1px solid black; padding: 2px; margin-right: 5px;">245</div> <div style="margin-right: 5px;"></div> <div> OMIM: online Mendelian Inheritance in Man </div> </div> <div style="display: flex; align-items: center; margin-bottom: 5px;"> <div style="border: 1px solid black; padding: 2px; margin-right: 5px;">none</div> <div style="margin-right: 5px;"></div> <div> OMIA: online Mendelian Inheritance in Animals </div> </div>
<div style="display: flex; align-items: center; margin-bottom: 5px;"> <div style="border: 1px solid black; padding: 2px; margin-right: 5px;">none</div> <div style="margin-right: 5px;"></div> <div> CoreNucleotide: Core subset of nucleotide sequence records </div> </div> <div style="display: flex; align-items: center; margin-bottom: 5px;"> <div style="border: 1px solid black; padding: 2px; margin-right: 5px;">none</div> <div style="margin-right: 5px;"></div> <div> EST: Expressed Sequence Tag records </div> </div> <div style="display: flex; align-items: center; margin-bottom: 5px;"> <div style="border: 1px solid black; padding: 2px; margin-right: 5px;">none</div> <div style="margin-right: 5px;"></div> <div> GSS: Genome Survey Sequence records </div> </div> <div style="display: flex; align-items: center; margin-bottom: 5px;"> <div style="border: 1px solid black; padding: 2px; margin-right: 5px;">none</div> <div style="margin-right: 5px;"></div> <div> Protein: sequence database </div> </div> <div style="display: flex; align-items: center; margin-bottom: 5px;"> <div style="border: 1px solid black; padding: 2px; margin-right: 5px;">22</div> <div style="margin-right: 5px;"></div> <div> Genome: whole genome sequences </div> </div> <div style="display: flex; align-items: center; margin-bottom: 5px;"> <div style="border: 1px solid black; padding: 2px; margin-right: 5px;">none</div> <div style="margin-right: 5px;"></div> <div> Structure: three-dimensional macromolecular structures </div> </div> <div style="display: flex; align-items: center; margin-bottom: 5px;"> <div style="border: 1px solid black; padding: 2px; margin-right: 5px;">none</div> <div style="margin-right: 5px;"></div> <div> Taxonomy: organisms in GenBank </div> </div> <div style="display: flex; align-items: center; margin-bottom: 5px;"> <div style="border: 1px solid black; padding: 2px; margin-right: 5px;">none</div> <div style="margin-right: 5px;"></div> <div> SNP: single nucleotide polymorphism </div> </div> <div style="display: flex; align-items: center; margin-bottom: 5px;"> <div style="border: 1px solid black; padding: 2px; margin-right: 5px;">200</div> <div style="margin-right: 5px;"></div> <div> Gene: gene-centered information </div> </div> <div style="display: flex; align-items: center; margin-bottom: 5px;"> <div style="border: 1px solid black; padding: 2px; margin-right: 5px;">3</div> <div style="margin-right: 5px;"></div> <div> HomoloGene: eukaryotic homology groups </div> </div> <div style="display: flex; align-items: center; margin-bottom: 5px;"> <div style="border: 1px solid black; padding: 2px; margin-right: 5px;">none</div> <div style="margin-right: 5px;"></div> <div> PubChem Compound: unique small molecule chemical structures </div> </div> <div style="display: flex; align-items: center; margin-bottom: 5px;"> <div style="border: 1px solid black; padding: 2px; margin-right: 5px;">none</div> <div style="margin-right: 5px;"></div> <div> PubChem Substance: deposited chemical substance records </div> </div> <div style="display: flex; align-items: center; margin-bottom: 5px;"> <div style="border: 1px solid black; padding: 2px; margin-right: 5px;">none</div> <div style="margin-right: 5px;"></div> <div> Genome Project: genome project information </div> </div>	<div style="display: flex; align-items: center; margin-bottom: 5px;"> <div style="border: 1px solid black; padding: 2px; margin-right: 5px;">1</div> <div style="margin-right: 5px;"></div> <div> dbGaP: genotype and phenotype </div> </div> <div style="display: flex; align-items: center; margin-bottom: 5px;"> <div style="border: 1px solid black; padding: 2px; margin-right: 5px;">846</div> <div style="margin-right: 5px;"></div> <div> UniGene: gene-oriented clusters of transcript sequences </div> </div> <div style="display: flex; align-items: center; margin-bottom: 5px;"> <div style="border: 1px solid black; padding: 2px; margin-right: 5px;">none</div> <div style="margin-right: 5px;"></div> <div> CDD: conserved protein domain database </div> </div> <div style="display: flex; align-items: center; margin-bottom: 5px;"> <div style="border: 1px solid black; padding: 2px; margin-right: 5px;">none</div> <div style="margin-right: 5px;"></div> <div> 3D Domains: domains from Entrez Structure </div> </div> <div style="display: flex; align-items: center; margin-bottom: 5px;"> <div style="border: 1px solid black; padding: 2px; margin-right: 5px;">86</div> <div style="margin-right: 5px;"></div> <div> UniSTS: markers and mapping data </div> </div> <div style="display: flex; align-items: center; margin-bottom: 5px;"> <div style="border: 1px solid black; padding: 2px; margin-right: 5px;">none</div> <div style="margin-right: 5px;"></div> <div> PopSet: population study data sets </div> </div> <div style="display: flex; align-items: center; margin-bottom: 5px;"> <div style="border: 1px solid black; padding: 2px; margin-right: 5px;">none</div> <div style="margin-right: 5px;"></div> <div> GEO Profiles: expression and molecular abundance profiles </div> </div> <div style="display: flex; align-items: center; margin-bottom: 5px;"> <div style="border: 1px solid black; padding: 2px; margin-right: 5px;">4</div> <div style="margin-right: 5px;"></div> <div> GEO DataSets: experimental sets of GEO data </div> </div> <div style="display: flex; align-items: center; margin-bottom: 5px;"> <div style="border: 1px solid black; padding: 2px; margin-right: 5px;">none</div> <div style="margin-right: 5px;"></div> <div> Cancer Chromosomes: cytogenetic databases </div> </div> <div style="display: flex; align-items: center; margin-bottom: 5px;"> <div style="border: 1px solid black; padding: 2px; margin-right: 5px;">none</div> <div style="margin-right: 5px;"></div> <div> PubChem BioAssay: bioactivity screens of chemical substances </div> </div> <div style="display: flex; align-items: center; margin-bottom: 5px;"> <div style="border: 1px solid black; padding: 2px; margin-right: 5px;">87</div> <div style="margin-right: 5px;"></div> <div> GENSAT: gene expression atlas of mouse central nervous system </div> </div> <div style="display: flex; align-items: center; margin-bottom: 5px;"> <div style="border: 1px solid black; padding: 2px; margin-right: 5px;">none</div> <div style="margin-right: 5px;"></div> <div> Probe: sequence-specific reagents </div> </div> <div style="display: flex; align-items: center; margin-bottom: 5px;"> <div style="border: 1px solid black; padding: 2px; margin-right: 5px;">204</div> <div style="margin-right: 5px;"></div> <div> Protein Clusters: a collection of related protein sequences </div> </div>
<div style="display: flex; align-items: center; margin-bottom: 5px;"> <div style="border: 1px solid black; padding: 2px; margin-right: 5px;">none</div> <div style="margin-right: 5px;"></div> <div> Journals: detailed information about the journals indexed in PubMed and other Entrez databases </div> </div> <div style="display: flex; align-items: center; margin-bottom: 5px;"> <div style="border: 1px solid black; padding: 2px; margin-right: 5px;">none</div> <div style="margin-right: 5px;"></div> <div> NLM Catalog: catalog of books, journals, and audiovisuals in the NLM collections </div> </div>	<div style="display: flex; align-items: center; margin-bottom: 5px;"> <div style="border: 1px solid black; padding: 2px; margin-right: 5px;">none</div> <div style="margin-right: 5px;"></div> <div> MeSH: detailed information about NLM's controlled vocabulary </div> </div>



Entrez, The Life Sciences Search Engine.

[HOME](#) | [SEARCH](#) | [SITE MAP](#) | [PubMed](#) | [All Databases](#) | [Human Genome](#) | [GenBank](#) | [Map Viewer](#) | [BLAST](#)

Search across databases

"translocation database"



GO

Clear

[Help](#)

☐ - Result counts displayed in gray Indicate one or more terms not found

304		PubMed: biomedical literature citations and abstracts		7	Books: online books
4535		PubMed Central: free, full text journal articles		184	OMIM: online Mendelian Inheritance in Man
3		Site Search: NCBI web and FTP sites		none	OMIA: online Mendelian Inheritance in Animals
none		CoreNucleotide: Core subset of nucleotide sequence records		24	dbGaP: genotype and phenotype
none		EST: Expressed Sequence Tag records		515	UniGene: gene-oriented clusters of transcript sequences
none		GSS: Genome Survey Sequence records		none	CDD: conserved protein domain database
none		Protein: sequence database		none	3D Domains: domains from Entrez Structure
67		Genome: whole genome sequences		326	UniSTS: markers and mapping data
none		Structure: three-dimensional macromolecular structures		1	PopSet: population study data sets
none		Taxonomy: organisms in GenBank		5	GEO Profiles: expression and molecular abundance profiles
none		SNP: single nucleotide polymorphism		40	GEO DataSets: experimental sets of GEO data
503		Gene: gene-centered information		3813	Cancer Chromosomes: cytogenetic databases
13		HomoloGene: eukaryotic homology groups		none	PubChem BioAssay: bioactivity screens of chemical substances
35		PubChem Compound: unique small molecule chemical structures		79	GENSAT: gene expression atlas of mouse central nervous system
12		PubChem Substance: deposited chemical substance records		none	Probe: sequence-specific reagents
52		Genome Project: genome project information		619	Protein Clusters: a collection of related protein sequences
3		Journals: detailed information about the journals indexed in PubMed and other Entrez databases		none	MeSH: detailed information about NLM's controlled vocabulary
1		NLM Catalog: catalog of books, journals, and audiovisuals in the NLM collections			

**Entrez, The Life Sciences Search Engine.**

HOME | SEARCH | SITE MAP | PubMed | All Databases | Human Genome | GenBank | Map Viewer | BLAST

Search across databases "engineered gene" or "non-naturally occurring gen" [Help](#)

- Result counts displayed in gray indicate one or more terms not found

PubMed: biomedical literature citations and abstracts	Books: online books
PubMed Central: free, full text journal articles	OMIM: online Mendelian Inheritance in Man
Site Search: NCBI web and FTP sites	OMIA: online Mendelian Inheritance in Animals
CoreNucleotide: Core subset of nucleotide sequence records	dbGaP: genotype and phenotype
EST: Expressed Sequence Tag records	UniGene: gene-oriented clusters of transcript sequences
GSS: Genome Survey Sequence records	CDD: conserved protein domain database
Protein: sequence database	3D Domains: domains from Entrez Structure
Genome: whole genome sequences	UniSTS: markers and mapping data
Structure: three-dimensional macromolecular structures	PopSet: population study data sets
Taxonomy: organisms in GenBank	GEO Profiles: expression and molecular abundance profiles
SNP: single nucleotide polymorphism	GEO DataSets: experimental sets of GEO data
Gene: gene-centered information	Cancer Chromosomes: cytogenetic databases
HomoloGene: eukaryotic homology groups	PubChem BioAssay: bioactivity screens of chemical substances
PubChem Compound: unique small molecule chemical structures	GENSAT: gene expression atlas of mouse central nervous system
PubChem Substance: deposited chemical substance records	Probe: sequence-specific reagents
Genome Project: genome project information	Protein Clusters: a collection of related protein sequences
Journals: detailed information about the journals indexed in PubMed and other Entrez databases	MeSH: detailed information about NLM's controlled vocabulary
NLM Catalog: catalog of books, journals, and audiovisuals in the NLM collections	

| Counts in XML | Entrez Utilities | Disclaimer | Privacy statement | Accessibility |



Entrez, The Life Sciences Search Engine.



[HOME](#) | [SEARCH](#) | [SITE MAP](#) | [PubMed](#) | [All Databases](#) | [Human Genome](#) | [GenBank](#) | [Map Viewer](#) | [BLAST](#)

Search across databases [Help](#)

- Result counts displayed in gray indicate one or more terms not found

2250 PubMed: biomedical literature citations and abstracts	24 Books: online books
20071 PubMed Central: free, full text journal articles	384 OMIM: online Mendelian Inheritance in Man
1 Site Search: NCBI web and FTP sites	none OMIA: online Mendelian Inheritance in Animals
Wait CoreNucleotide: Core subset of nucleotide sequence records	4 dbGap: genotype and phenotype
none EST: Expressed Sequence Tag records	4 UniGene: gene-oriented clusters of transcript sequences
none GSS: Genome Survey Sequence records	none CDD: conserved protein domain database
none Protein: sequence database	41 3D Domains: domains from Entrez Structure
32 Genome: whole genome sequences	15032 UniSTS: markers and mapping data
13 Structure: three-dimensional macromolecular structures	none PopSet: population study data sets
none Taxonomy: organisms in GenBank	Wait GEO Profiles: expression and molecular abundance profiles
Wait SNP: single nucleotide polymorphism	17 GEO DataSets: experimental sets of GEO data
29 Gene: gene-centered information	Wait Cancer Chromosomes: cytogenetic databases
564 HomoloGene: eukaryotic homology groups	1 PubChem BioAssay: bioactivity screens of chemical substances
none PubChem Compound: unique small molecule chemical structures	1723 GENSAT: gene expression atlas of mouse central nervous system
none PubChem Substance: deposited chemical substance records	20 Probe: sequence-specific reagents
none Genome Project: genome project information	none Protein Clusters: a collection of related protein sequences
1 Journals: detailed information about the journals indexed in PubMed and other Entrez databases	none MeSH: detailed information about NLM's controlled vocabulary
none NLM Catalog: catalog of books, journals, and audiovisuals in the NLM collections	




































[Counts in XML](#) | [Entrez Utilities](#) | [Disclaimer](#) | [Privacy statement](#) | [Accessibility](#) |

 **Entrez, The Life Sciences Search Engine.**


HOME | SEARCH | SITE MAP | PubMed | All Databases | Human Genome | GenBank | Map Viewer | BLAST


Search across databases [Help](#)

Result counts displayed in gray indicate one or more terms not found

10526  PubMed: biomedical literature citations and abstracts	29  Books: online books
5274  PubMed Central: free, full text journal articles	11  OMIM: online Mendelian Inheritance in Man
8  Site Search: NCBI web and FTP sites	none  OMIA: online Mendelian Inheritance in Animals
none  CoreNucleotide: Core subset of nucleotide sequence records	1  dbGaP: genotype and phenotype
none  EST: Expressed Sequence Tag records	none  UniGene: gene-oriented clusters of transcript sequences
none  GSS: Genome Survey Sequence records	1  CDD: conserved protein domain database
none  Protein: sequence database	none  3D Domains: domains from Entrez Structure
92  Genome: whole genome sequences	none  UNISTs: markers and mapping data
none  Structure: three-dimensional macromolecular structures	2  PopSet: population study data sets
none  Taxonomy: organisms in GenBank	none  GEO Profiles: expression and molecular abundance profiles
19815377  SNP: single nucleotide polymorphism	6  GEO DataSets: experimental sets of GEO data
489  Gene: gene-centered information	none  Cancer Chromosomes: cytogenetic databases
51  HomoloGene: eukaryotic homology groups	none  PubChem BioAssay: bioactivity screens of chemical substances
none  PubChem Compound: unique small molecule chemical structures	434  GENSAT: gene expression atlas of mouse central nervous system
none  PubChem Substance: deposited chemical substance records	none  Probe: sequence-specific reagents
none  Genome Project: genome project information	none  Protein Clusters: a collection of related protein sequences
none  Journals: detailed information about the journals indexed in PubMed and other Entrez databases	none  MeSH: detailed information about NLM's controlled vocabulary
none  NLM Catalog: catalog of books, journals, and audiovisuals in the NLM collections	

| Counts in XML | Entrez Utilities | Disclaimer | Privacy statement | Accessibility |





Entrez, The Life Sciences Search Engine.

[HOME](#) | [SEARCH](#) | [SITE MAP](#) | [PubMed](#) | [All Databases](#) | [Human Genome](#) | [GenBank](#) | [Map Viewer](#) | [BLAST](#)

Search across databases [Help](#)

☐ - Result counts displayed in gray indicate one or more terms not found

<p>2501 PubMed: biomedical literature citations and abstracts</p> <p>3909 PubMed Central: free, full text journal articles</p> <p>1 Site Search: NCBI web and FTP sites</p>	<p>23 Books: online books</p> <p>41 OMIM: online Mendelian Inheritance in Man</p> <p>3 OMIA: online Mendelian Inheritance in Animals</p>
<p>546 CoreNucleotide: Core subset of nucleotide sequence records</p> <p>1 EST: Expressed Sequence Tag records</p> <p>none GSS: Genome Survey Sequence records</p> <p>1255 Protein: sequence database</p> <p>3 Genome: whole genome sequences</p> <p>217 Structure: three-dimensional macromolecular structures</p> <p>none Taxonomy: organisms in GenBank</p> <p>1821 SNP: single nucleotide polymorphism</p> <p>178 Gene: gene-centered information</p> <p>109 HomoloGene: eukaryotic homology groups</p> <p>none PubChem Compound: unique small molecule chemical structures</p> <p>336 PubChem Substance: deposited chemical substance records</p> <p>1 Genome Project: genome project information</p>	<p>2 dbGaP: genotype and phenotype</p> <p>4 UniGene: gene-oriented clusters of transcript sequences</p> <p>1 CDD: conserved protein domain database</p> <p>427 3D Domains: domains from Entrez Structure</p> <p>79470 UniSTS: markers and mapping data</p> <p>17 PopSet: population study data sets</p> <p>19094 GEO Profiles: expression and molecular abundance profiles</p> <p>29 GEO DataSets: experimental sets of GEO data</p> <p>none Cancer Chromosomes: cytogenetic databases</p> <p>1 PubChem BioAssay: bioactivity screens of chemical substances</p> <p>13469 GENSAT: gene expression atlas of mouse central nervous system</p> <p>1 Probe: sequence-specific reagents</p> <p>84 Protein Clusters: a collection of related protein sequences</p>
<p>none Journals: detailed information about the journals indexed in PubMed and other Entrez databases</p> <p>5 NLM Catalog: catalog of books, journals, and audiovisuals in the NLM collections</p>	<p>1 MeSH: detailed information about NLM's controlled vocabulary</p>



Entrez, The Life Sciences Search Engine.

HOME SEARCH SITE MAP PubMed All Databases Human Genome GenBank Map Viewer BLAST

Search across databases

"predicted protein transport"

GO



Clear

Help

Result counts displayed in gray Indicate one or more terms not found

390	PubMed: biomedical literature citations and abstracts	3	Books: online books
2246	PubMed Central: free, full text journal articles	496	OMIM: online Mendelian Inheritance in Man
none	Site Search: NCB1 web and FTP sites	none	OMIA: online Mendelian Inheritance in Animals
none	CoreNucleotide: Core subset of nucleotide sequence records	1	dbGaP: genotype and phenotype
none	EST: Expressed Sequence Tag records	26	UniGene: gene-oriented clusters of transcript sequences
none	GSS: Genome Survey Sequence records	none	CDD: conserved protein domain database
none	Protein: sequence database	17	3D Domains: domains from Entrez Structure
70	Genome: whole genome sequences	2	UnisTS: markers and mapping data
4	Structure: three-dimensional macromolecular structures	none	PopSet: population study data sets
none	Taxonomy: organisms in GenBank	none	GEO Profiles: expression and molecular abundance profiles
1821	SNP: single nucleotide polymorphism	1	GEO DataSets: experimental sets of GEO data
491	Gene: gene-centered information	236	Cancer Chromosomes: cytogenetic databases
43	HomoloGene: eukaryotic homology groups	none	PubChem BioAssay: bioactivity screens of chemical substances
none	PubChem Compound: unique small molecule chemical structures	none	GENSAT: gene expression atlas of mouse central nervous system
none	PubChem Substance: deposited chemical substance records	1	Probe: sequence-specific reagents
none	Genome Project: genome project information	6	Protein Clusters: a collection of related protein sequences
none	Journals: detailed information about the journals indexed in PubMed and other Entrez databases	none	MeSH: detailed information about NLM's controlled vocabulary
1	NLM Catalog: catalog of books, journals, and audiovisuals in the NLM collections		




































| Counts in XML | Entrez Utilities | Disclaimer | Privacy statement | Accessibility |

  **Entrez, The Life Sciences Search Engine.**



HOME | SEARCH | SITE MAP | PubMed | All Databases | Human Genome | GenBank | Map Viewer | BLAST

Search across databases [Help](#)

☐ - Result counts displayed in gray indicate one or more terms not found


156  PubMed: biomedical literature citations and abstracts	3  Books: online books
878  PubMed Central: free, full text journal articles	14562  OMIM: online Mendelian Inheritance in Man
7  Site Search: NCBI web and FTP sites	2  OMIA: online Mendelian Inheritance in Animals
none  CoreNucleotide: Core subset of nucleotide sequence records	4  dbGaP: genotype and phenotype
none  EST: Expressed Sequence Tag records	30174  UniGene: gene-oriented clusters of transcript sequences
none  GSS: Genome Survey Sequence records	702  CDD: conserved protein domain database
none  Protein: sequence database	none  3D Domains: domains from Entrez Structure
6104  Genome: whole genome sequences	8762  UniSTS: markers and mapping data
none  Structure: three-dimensional macromolecular structures	42267  PopSet: population study data sets
none  Taxonomy: organisms in GenBank	24156492  GEO Profiles: expression and molecular abundance profiles
792  SNP: single nucleotide polymorphism	7702  GEO DataSets: experimental sets of GEO data
310552  Geno: gene-centered information	2427  Cancer Chromosomes: cytogenetic databases
44201  HomoloGono: eukaryotic homology groups	91  PubChem BioAssay: bioactivity screens of chemical substances
21  PubChem Compound: unique small molecule chemical structures	3430  GENSAT: gene expression atlas of mouse central nervous system
2164  PubChem Substance: deposited chemical substance records	1478964  Probe: sequence-specific reagents
253  Genome Project: genome project information	378  Protein Clusters: a collection of related protein sequences
20  Journals: detailed information about the journals indexed in PubMed and other Entrez databases	1  MeSH: detailed information about NLM's controlled vocabulary
none  NLM Catalog: catalog of books, journals, and audiovisuals in the NLM collections	







































































[Counts in XML](#) | [Entrez Utilities](#) | [Disclaimer](#) | [Privacy statement](#) | [Accessibility](#) |


 **Entrez, The Life Sciences Search Engine.**


HOME | SEARCH | SITE MAP | PubMed | All Databases | Human Genome | GenBank | Map Viewer | BLAST

Search across databases [Help](#)

 - Result counts displayed in gray indicate one or more terms not found

17475  PubMed: biomedical literature citations and abstracts 	45  Books: online books 
22270  PubMed Central: free, full text journal articles 	143  OMIM: online Mendelian Inheritance in Man 
2  Site Search: NCBI web and FTP sites 	none  OMIA: online Mendelian Inheritance in Animals 
none  CoreNucleotide: Core subset of nucleotide sequence records 	none  dbGaP: genotype and phenotype 
none  EST: Expressed Sequence Tag records 	none  UniGene: gene-oriented clusters of transcript sequences 
none  GSS: Genome Survey Sequence records 	none  CDD: conserved protein domain database 
none  Protein: sequence database 	384  3D Domains: domains from Entrez Structure 
5  Genome: whole genome sequences 	none  UniSTS: markers and mapping data 
132  Structure: three-dimensional macromolecular structures 	3  PopSet: population study data sets 
none  Taxonomy: organisms in GenBank 	none  GEO Profiles: expression and molecular abundance profiles 
792  SNP: single nucleotide polymorphism 	1  GEO DataSets: experimental sets of GEO data 
8  Gene: gene-centered information 	none  Cancer Chromosomes: cytogenetic databases 
211  HomoloGene: eukaryotic homology groups 	none  PubChem BioAssay: bioactivity screens of chemical substances 
none  PubChem Compound: unique small molecule chemical structures 	none  GENSAT: gene expression atlas of mouse central nervous system 
none  PubChem Substance: deposited chemical substance records 	none  Probe: sequence-specific reagents 
none  Genome Project: genome project information 	none  Protein Clusters: a collection of related protein sequences 
none  Journals: detailed information about the journals indexed in PubMed and other Entrez databases 	none  MeSH: detailed information about NLM's controlled vocabulary 
6  NLM Catalog: catalog of books, journals, and audiovisuals in the NLM collections 	






Entrez, The Life Sciences Search Engine.

[HOME](#) | [SEARCH](#) | [SITE MAP](#) | [PubMed](#) | [All Databases](#) | [Human Genome](#) | [GenBank](#) | [Map Viewer](#) | [BLAST](#)

Search across databases [Help](#)

■ - Result counts displayed in gray indicate one or more terms not found




































<div style="display: flex; align-items: center; margin-bottom: 5px;"> <div style="border: 1px solid black; padding: 2px; margin-right: 5px;">32</div> <div style="margin-right: 5px;"></div> <div> PubMed: biomedical literature citations and abstracts </div> </div> <div style="display: flex; align-items: center; margin-bottom: 5px;"> <div style="border: 1px solid black; padding: 2px; margin-right: 5px;">161</div> <div style="margin-right: 5px;"></div> <div> PubMed Central: free, full text journal articles </div> </div> <div style="display: flex; align-items: center; margin-bottom: 5px;"> <div style="border: 1px solid black; padding: 2px; margin-right: 5px;">2</div> <div style="margin-right: 5px;"></div> <div> Site Search: NCBI web and FTP sites </div> </div>	<div style="display: flex; align-items: center; margin-bottom: 5px;"> <div style="border: 1px solid black; padding: 2px; margin-right: 5px;">84</div> <div style="margin-right: 5px;"></div> <div> Books: online books </div> </div> <div style="display: flex; align-items: center; margin-bottom: 5px;"> <div style="border: 1px solid black; padding: 2px; margin-right: 5px;">131</div> <div style="margin-right: 5px;"></div> <div> OMIM: online Mendelian Inheritance in Man </div> </div> <div style="display: flex; align-items: center; margin-bottom: 5px;"> <div style="border: 1px solid black; padding: 2px; margin-right: 5px;">none</div> <div style="margin-right: 5px;"></div> <div> OMIA: online Mendelian Inheritance in Animals </div> </div>
<div style="display: flex; align-items: center; margin-bottom: 5px;"> <div style="border: 1px solid black; padding: 2px; margin-right: 5px;">none</div> <div style="margin-right: 5px;"></div> <div> CoreNucleotide: Core subset of nucleotide sequence records </div> </div> <div style="display: flex; align-items: center; margin-bottom: 5px;"> <div style="border: 1px solid black; padding: 2px; margin-right: 5px;">none</div> <div style="margin-right: 5px;"></div> <div> EST: Expressed Sequence Tag records </div> </div> <div style="display: flex; align-items: center; margin-bottom: 5px;"> <div style="border: 1px solid black; padding: 2px; margin-right: 5px;">6</div> <div style="margin-right: 5px;"></div> <div> GSS: Genome Survey Sequence records </div> </div> <div style="display: flex; align-items: center; margin-bottom: 5px;"> <div style="border: 1px solid black; padding: 2px; margin-right: 5px;">2</div> <div style="margin-right: 5px;"></div> <div> Protein: sequence database </div> </div> <div style="display: flex; align-items: center; margin-bottom: 5px;"> <div style="border: 1px solid black; padding: 2px; margin-right: 5px;">212</div> <div style="margin-right: 5px;"></div> <div> Genome: whole genome sequences </div> </div> <div style="display: flex; align-items: center; margin-bottom: 5px;"> <div style="border: 1px solid black; padding: 2px; margin-right: 5px;">8</div> <div style="margin-right: 5px;"></div> <div> Structure: three-dimensional macromolecular structures </div> </div> <div style="display: flex; align-items: center; margin-bottom: 5px;"> <div style="border: 1px solid black; padding: 2px; margin-right: 5px;">none</div> <div style="margin-right: 5px;"></div> <div> Taxonomy: organisms in GenBank </div> </div> <div style="display: flex; align-items: center; margin-bottom: 5px;"> <div style="border: 1px solid black; padding: 2px; margin-right: 5px;">19815377</div> <div style="margin-right: 5px;"></div> <div> SNP: single nucleotide polymorphism </div> </div> <div style="display: flex; align-items: center; margin-bottom: 5px;"> <div style="border: 1px solid black; padding: 2px; margin-right: 5px;">305</div> <div style="margin-right: 5px;"></div> <div> Gene: gene-centered information </div> </div> <div style="display: flex; align-items: center; margin-bottom: 5px;"> <div style="border: 1px solid black; padding: 2px; margin-right: 5px;">81</div> <div style="margin-right: 5px;"></div> <div> HomoloGene: eukaryotic homology groups </div> </div> <div style="display: flex; align-items: center; margin-bottom: 5px;"> <div style="border: 1px solid black; padding: 2px; margin-right: 5px;">2</div> <div style="margin-right: 5px;"></div> <div> PubChem Compound: unique small molecule chemical structures </div> </div> <div style="display: flex; align-items: center; margin-bottom: 5px;"> <div style="border: 1px solid black; padding: 2px; margin-right: 5px;">5</div> <div style="margin-right: 5px;"></div> <div> PubChem Substance: deposited chemical substance records </div> </div> <div style="display: flex; align-items: center; margin-bottom: 5px;"> <div style="border: 1px solid black; padding: 2px; margin-right: 5px;">590</div> <div style="margin-right: 5px;"></div> <div> Genome Project: genome project information </div> </div>	<div style="display: flex; align-items: center; margin-bottom: 5px;"> <div style="border: 1px solid black; padding: 2px; margin-right: 5px;">9</div> <div style="margin-right: 5px;"></div> <div> dbGAP: genotype and phenotype </div> </div> <div style="display: flex; align-items: center; margin-bottom: 5px;"> <div style="border: 1px solid black; padding: 2px; margin-right: 5px;">3</div> <div style="margin-right: 5px;"></div> <div> UniGene: gene-oriented clusters of transcript sequences </div> </div> <div style="display: flex; align-items: center; margin-bottom: 5px;"> <div style="border: 1px solid black; padding: 2px; margin-right: 5px;">1</div> <div style="margin-right: 5px;"></div> <div> CDD: conserved protein domain database </div> </div> <div style="display: flex; align-items: center; margin-bottom: 5px;"> <div style="border: 1px solid black; padding: 2px; margin-right: 5px;">46</div> <div style="margin-right: 5px;"></div> <div> 3D Domains: domains from Entrez Structure </div> </div> <div style="display: flex; align-items: center; margin-bottom: 5px;"> <div style="border: 1px solid black; padding: 2px; margin-right: 5px;">8852</div> <div style="margin-right: 5px;"></div> <div> UniSTS: markers and mapping data </div> </div> <div style="display: flex; align-items: center; margin-bottom: 5px;"> <div style="border: 1px solid black; padding: 2px; margin-right: 5px;">23930</div> <div style="margin-right: 5px;"></div> <div> PopSet: population study data sets </div> </div> <div style="display: flex; align-items: center; margin-bottom: 5px;"> <div style="border: 1px solid black; padding: 2px; margin-right: 5px;">14</div> <div style="margin-right: 5px;"></div> <div> GEO Profiles: expression and molecular abundance profiles </div> </div> <div style="display: flex; align-items: center; margin-bottom: 5px;"> <div style="border: 1px solid black; padding: 2px; margin-right: 5px;">24</div> <div style="margin-right: 5px;"></div> <div> GEO DataSets: experimental sets of GEO data </div> </div> <div style="display: flex; align-items: center; margin-bottom: 5px;"> <div style="border: 1px solid black; padding: 2px; margin-right: 5px;">46</div> <div style="margin-right: 5px;"></div> <div> Cancer Chromosomes: cytogenetic databases </div> </div> <div style="display: flex; align-items: center; margin-bottom: 5px;"> <div style="border: 1px solid black; padding: 2px; margin-right: 5px;">none</div> <div style="margin-right: 5px;"></div> <div> PubChem BioAssay: bioactivity screens of chemical substances </div> </div> <div style="display: flex; align-items: center; margin-bottom: 5px;"> <div style="border: 1px solid black; padding: 2px; margin-right: 5px;">434</div> <div style="margin-right: 5px;"></div> <div> GENSAT: gene expression atlas of mouse central nervous system </div> </div> <div style="display: flex; align-items: center; margin-bottom: 5px;"> <div style="border: 1px solid black; padding: 2px; margin-right: 5px;">13</div> <div style="margin-right: 5px;"></div> <div> Probe: sequence-specific reagents </div> </div> <div style="display: flex; align-items: center; margin-bottom: 5px;"> <div style="border: 1px solid black; padding: 2px; margin-right: 5px;">none</div> <div style="margin-right: 5px;"></div> <div> Protein Clusters: a collection of related protein sequences </div> </div>
<div style="display: flex; align-items: center; margin-bottom: 5px;"> <div style="border: 1px solid black; padding: 2px; margin-right: 5px;">1</div> <div style="margin-right: 5px;"></div> <div> Journals: detailed information about the journals indexed in PubMed and other Entrez databases </div> </div> <div style="display: flex; align-items: center; margin-bottom: 5px;"> <div style="border: 1px solid black; padding: 2px; margin-right: 5px;">1</div> <div style="margin-right: 5px;"></div> <div> NLM Catalog: catalog of books, journals, and audiovisuals in the NLM collections </div> </div>	<div style="display: flex; align-items: center; margin-bottom: 5px;"> <div style="border: 1px solid black; padding: 2px; margin-right: 5px;">2</div> <div style="margin-right: 5px;"></div> <div> MeSH: detailed information about NLM's controlled vocabulary </div> </div>

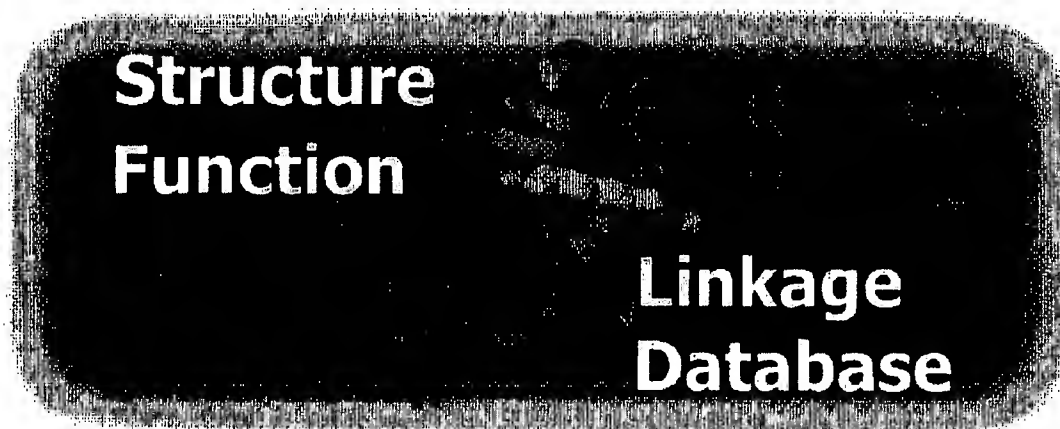
 **Entrez, The Life Sciences Search Engine.**

HOME | SEARCH | SITE MAP | PubMed | All Databases | Human Genome | GenBank | Map Viewer | BLAST

Search across databases [Help](#)

☐ - Result counts displayed in gray Indicate one or more terms not found

51  PubMed: biomedical literature citations and abstracts	1  Books: online books
70  PubMed Central: free, full text journal articles	1  OMIM: online Mendelian Inheritance in Man
none  Site Search: NCBI web and FTP sites	none  OMIA: online Mendelian Inheritance in Animals
36  CoreNucleotide: Core subset of nucleotide sequence records	7  dbGaP: genotype and phenotype
none  EST: Expressed Sequence Tag records	none  UniGene: gene-oriented clusters of transcript sequences
none  GSS: Genome Survey Sequence records	none  CDD: conserved protein domain database
10  Protein: sequence database	none  3D Domains: domains from Entrez Structure
2  Genome: whole genome sequences	1  UniSTS: markers and mapping data
none  Structure: three-dimensional macromolecular structures	2010  PopSet: population study data sets
none  Taxonomy: organisms in GenBank	5340  GEO Profiles: expression and molecular abundance profiles
none  SNP: single nucleotide polymorphism	8  GEO DataSets: experimental sets of GEO data
32  Gene: gene-centered information	none  Cancer Chromosomes: cytogenetic databases
20  HomoloGene: eukaryotic homology groups	none  PubChem BioAssay: bioactivity screens of chemical substances
none  PubChem Compound: unique small molecule chemical structures	none  GENSAT: gene expression atlas of mouse central nervous system
13  PubChem Substance: deposited chemical substance records	none  Probe: sequence-specific reagents
37  Genome Project: genome project information	2  Protein Clusters: a collection of related protein sequences
none  Journals: detailed information about the journals indexed in PubMed and other Entrez databases	none  MeSH: detailed information about NLM's controlled vocabulary
2  NLM Catalog: catalog of books, journals, and audiovisuals in the NLM collections	



Welcome to the Structure-Function Linkage Database

What is the SFLD?

- A database that links evolutionarily related sequences and structures from mechanistically diverse superfamilies of enzymes to their chemical reactions
- Correlates conserved active site residues with specific partial reactions that all members of a superfamily perform ([more details](#))

What can I use the SFLD for?

- Classify a sequence into the nearest superfamily and retrieve the associated sequences, structures, and chemical reactions of even diverse relatives
- Infer function of a sequence by viewing it in the context of curated proteins at the superfamily and family level

What makes the SFLD unique?

- The SFLD correlates conserved partial reactions associated with active site similarities in all members of a superfamily
- Provides the ability to search for related proteins by their partial chemical reactions

How can I use the SFLD? ([Instructions & Caveats](#))

- [Browse by superfamily, subgroup, and family](#)
- [Browse by reaction \(overall\)](#)
- [Search by enzyme](#) (GI number or name)
- [Search by reaction](#) (overall or partial)
- [Classify](#) a sequence into a superfamily, subgroup, or family

The SFLD is a collaborative project of the Babbitt and Ferrin labs at UCSF. We gratefully acknowledge support from NIH GM60595 and NSF DBI0234768 (to PCB) and NIH RR01081 (to TEF).

Copyright © 2004,2005 Regents of the University of California. All rights reserved.